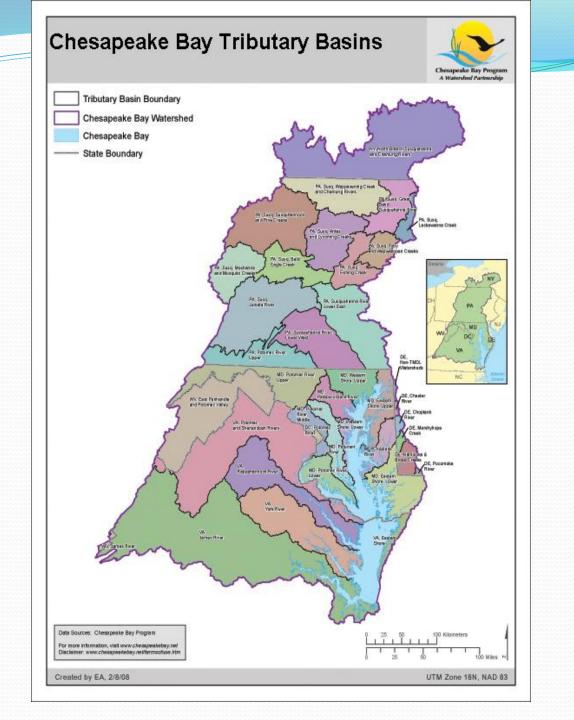


Commonwealth of Virginia Chesapeake Bay TMDL Watershed Implementation Plan (WIP)

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Key Players

- EPA
- 6 States: Virginia, Maryland, Delaware, Pennsylvania, New York, West Virginia
- District of Columbia
- In VA: SNR, SAF, DEQ, DCR, VDACS, DOF, VDH
- Stakeholders, Local Governments and the public

What is a TMDL?

- Total Maximum Daily Load (TMDL): The maximum sum of pollutants that a water body can accept and meet water quality standards, "designated uses" such as a fishable or swimmable condition.
- Maximum sum of pollutants = <u>regulated</u> wasteload allocations (WLAs) + <u>unregulated</u> load allocations (LAs)
- Water Quality Standards for the Bay's tidal waters (VA, MD, DE) dissolved oxygen, water clarity, and chlorophyll *a* (a measure of algae) by 2025 by setting maximum Total Nitrogen (TN), Total Phosphorus (TP), and Sediment (TSS) allocations. These water quality standards (except chlorophyll "a") are applicable to tidal waters in VA, MD and DE.

Why a TMDL?

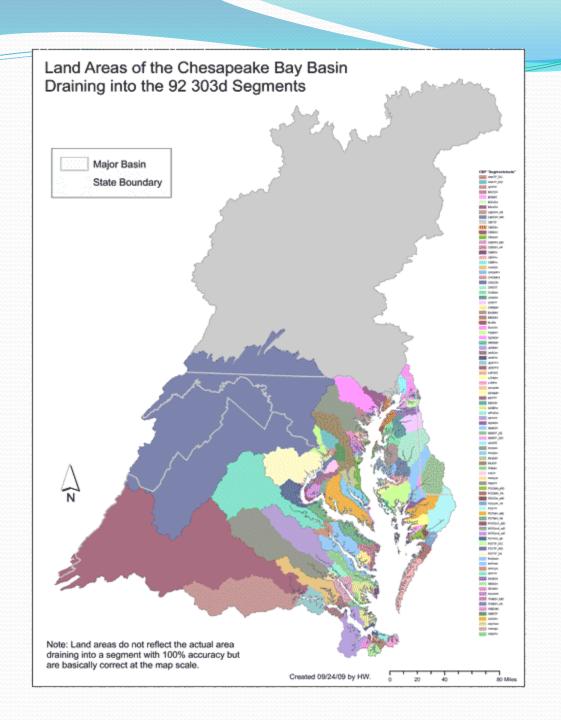
- The Chesapeake 2000 Agreement set a goal to "delist" the Bay by 2010 and avoid a TMDL.
- TMDL established because bay and tidal river water quality standards for dissolved oxygen, water clarity and chlorophyll "a" are not being met.

What's in the TMDL

- Source Sectors
 - WLA Regulated Point Sources: Significant and nonsignificant Municipal and Industrial facilities; CSS/CSO; NPDES permitted stormwater (Industrial Stormwater, MS4, Construction General Permit), CAFO
 - LA Agriculture; atmospheric deposition; forest; onsite/septic; nonregulated stormwater; and a few others.

What's in the TMDL (con't)

- WLA and LA for 92 "segment-sheds"
- Description of water quality standards
- Modeling and Monitoring framework
- "Reasonable Assurance" framework



What is the WIP?

- State plan for nutrient and sediment reductions from source sectors
- Proposes management actions and sector allocations
- Used by EPA to "inform" establishment of the TMDL
- WIP is a state plan and will be periodically updated and revised.

Virginia's Priorities

- Allow flexibility in implementation to ensure costeffective practices are given priority.
- Recognize current economic conditions, the economic impacts of the TMDL and the need for federal support.
- Reserve the right to modify the plan and adapt as necessary.

Current Events

- July 1, 2010: Nitrogen and Phosphorus allocations for all states and river basins established by EPA
- August 13, 2010: Sediment allocations established (closely correlated with phosphorus allocations)
- September 3, 2010: DRAFT Phase 1 WIP submitted to EPA
- September 24, 2010: DRAFT TMDL issued by EPA
- September 24, 2010 November 8: Public Comment Period, 4
 Public Meetings and webinar, Meetings with EPA and
 stakeholders
- November 29, 2010 "Final" Phase 1 WIP submitted to EPA
- December 31, 2010 EPA Issues FINAL Chesapeake Bay TMDL

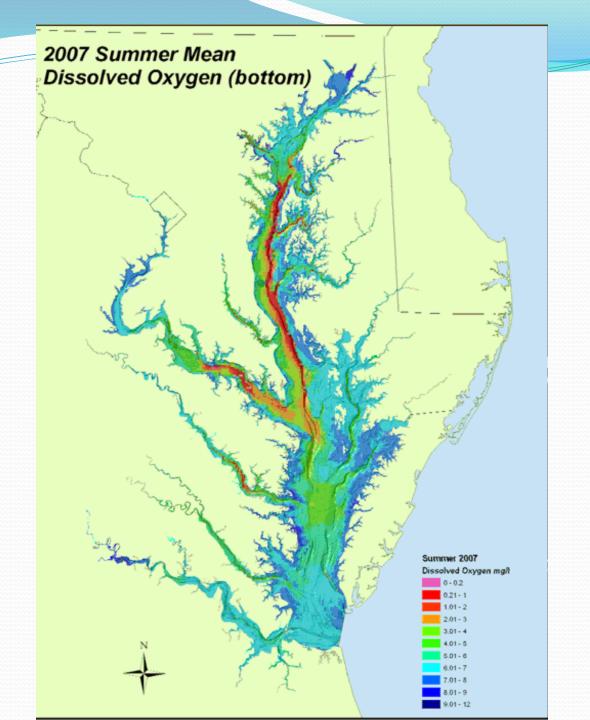
Future Dates and Expected Actions

Expected in 2011:

- Submittal of "Phase II" WIPS by the states. Phase II plans are expected to be developed with actions proposed at a smaller, local scale.
- Revisions to the Chesapeake Bay Model to correct currently known deficiencies.
- Modifications of the TMDL allocations by EPA by 15 Dec 2011

Expected in 2017:

- Submittal of Phase III WIPS by the states.
- Modifications of the TMDL allocations by Dec 2017



Virginia's Watershed Implementation Plan: Overview

- Meets 2017 target loads (60% of 2025 allocations) for all basins through management actions, plus use of existing nutrient credits achieve those target loads and sets 2025 TMDL allocations
- Proposes a broad expansion of the existing nutrient credit exchange through a legislative study
- Includes plan for the James River for additional study of the current chlorophyll standard and includes additional reductions from point sources and an aggregate allocation of 3.3 mpy TN and .35 mpy TP beyond 2017.
- Revisions to the 2025 allocations in 2017 and ongoing updates to the WIP.

Expand Nutrient Credit Exchange

Next Steps:

- Major programmatic undertaking for Commonwealth
- Will require General Assembly action
- Pursuing legislature-sanctioned study during 2011
- Proposal for consideration during 2012 session of General Assembly

James River Strategy

<u>Step 1:</u> Begin Pollution Reduction Actions During Stage 1 of TMDL Implementation to achieve the 60% Reduction Target by 2017

Step 2: Conduct Scientific Study to Determine the Most Appropriate Chlorophyll Criteria for the Tidal James River; and Initiate Rulemaking under the Virginia Administrative Process Act to Amend Water Quality Standards, as Needed [concurrent with Step 1]

<u>Step 3:</u> Amend TMDL Allocations for the James River Basin, as needed, in response to revised Water Quality Standards

<u>Step 4:</u> Virginia Implements Necessary Management Actions during Stage 2 to Achieve TMDL Allocations Prior to 2025

Virginia WIP: Wastewater

- Draft WIP met or exceeded EPA backstops in the Shenandoah, Potomac, Rappahannock, and Eastern Shore basins.
- WIP uses adjusted current nutrient allocations for significant wastewater facilities under the State Water Control Board issued Chesapeake Bay Watershed General Permit that establishes nutrient caps for all significant discharges and ability to trade through the Nutrient Credit Exchange. Additional reductions of 2.6 million lbs of N and 200,000 lbs of P in the James basin and 42,500 lbs of P in the York.
- New facilities under 1,000 gpd must offset entire nutrient load (component of Nutrient Credit Exchange expansion).
- Requirements for offsets for nutrient loads from small dischargers expanding to less than 40,000 gallons per day
- "Timebridge" (post 2017) reductions not allocated to specific facilities



Virginia WIP: Onsite/Septic

- WIP presumes implementation of new regulations for alternative systems that require nutrient controls (currently under executive review).
- WIP proposes new or replacement systems in the Chesapeake Bay watershed utilize nitrogen reducing technology.
- WIP proposes establishing a tax credit or other financial incentive for the upgrade or replacement of existing conventional systems with systems that have nitrogen removal technologies.
- WIP proposes requiring septic pump-outs in areas outside those governed by the Chesapeake Bay Preservation Act which currently requires pump-outs every 5 years.



VA WIP: Agriculture/Forestry

- Implementation of conservation plans on agricultural acres which could result in significant implementation of these practices:
 - Nutrient management plans
 - livestock exclusion from streams
 - 35' stream buffers
 - soil conservation; such as no-till and cover crops
- Need 95% coverage of the above practices by 2025
- Vastly improved accounting of voluntary practices (SB346).
- Improved implementation of forestry water quality BMP requirements.

VA WIP: Urban/Suburban Stormwater

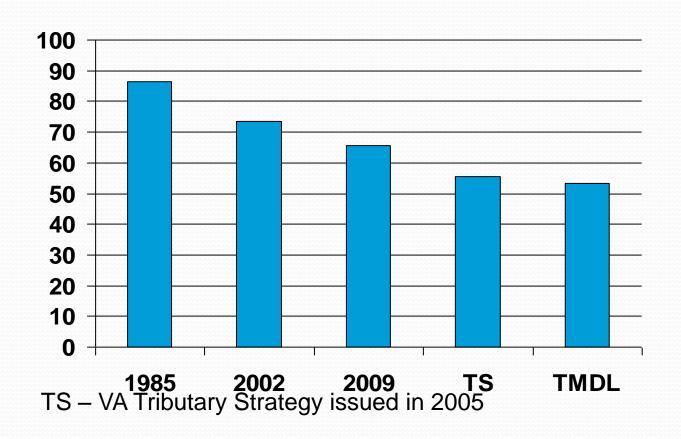
- Consider requiring all municipal / county owned lands implement NMPs if nutrients are applied (State lands already required)
- Voluntary reporting of acreage and rates by lawn service companies
- Consider requiring NMPs on all public and private golf courses
- Sales restrictions or controls on do-it-yourself fertilizers
 - Phosphorus ban, time of year restrictions, slow release nitrogen, labeling
 - Scotts Miracle-Gro Company has agreed to eliminate phosphorus from all lawn products by 2012
- Consider prohibiting use of nitrogen based de-icers
- Consider requiring proper storage and disposal of non-ag fertilizers by retailers

VA WIP: Urban/Suburban Stormwater

- The plan proposes a 20% phosphorus reduction standard for areas being redeveloped
- The draft plan proposes stormwater retrofits on existing developed lands to reduce nitrogen, phosphorus and sediment
- Potential greater use of stormwater utilities or service districts to generate funding for BMP retrofits
- For new development, post development loads cannot exceed allowed loads of previous land uses

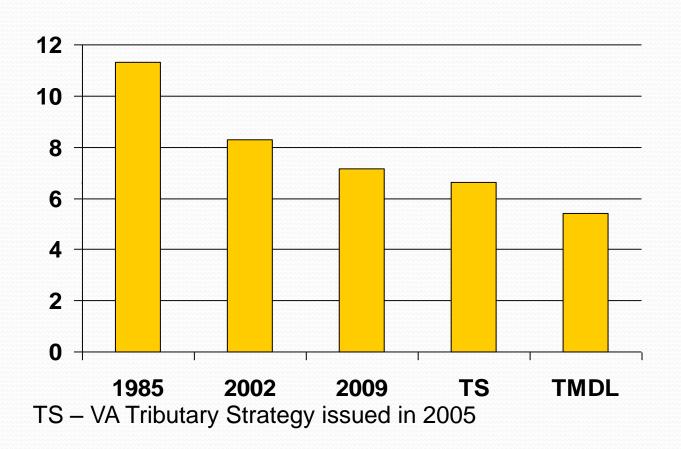
Virginia Nitrogen Loads

[million lbs/yr]



Virginia Phosphorus Loads

[million lbs/yr]



For More Information

Comments and questions: VABAYTMDL@dcr.virginia.gov



www.dcr.virginia.gov/soil_and_water/baytmdl.shtml



www.deq.virginia.gov/tmdl/chesapeakebay.html

TMDL Info and links to all state WIPs www.epa.gov/chesapeakebaytmdl/